

R E M A R K S

The amendments to claims 1 and 5 are supported by page 10, line 8 to page 13, line 17 of the specification, and by Figs. 2A to 2G and Figs. 3A to 3B.

Claim 2 was amended to be consistent with the amendment to claim 1.

Claims 6, 9, 10, 27, 36 and 37 were amended to delete the dependency on claim 5.

The amendment to claim 9 deleting "an alloy of" is consistent with claim 9 as recited in the AMENDMENT UNDER 37 CFR 1.116 filed March 8, 2006.

The amendment to claim 36 regarding changing "layer" to "portion" is consistent with the amendment to claim 1 ("passivated portion").

New claim 38 includes the features of claim 6.

New claim 39 includes the features of claim 7.

New claim 40 includes the features of claim 9.

New claim 41 includes the features of claim 10.

New claim 42 includes the features of claim 25.

New claim 43 includes the features of claim 27.

New claim 44 includes the features of claim 36.

New claim 45 includes the features of claim 37.

Claims 1, 2, 4 to 7, 9 to 10, 13, 25, 27, 36 and 37 were rejected under 35 USC 103 as being unpatentable over USP 4,350,564 to Wei in view of USP 6,294,467 to Yokoyama et al. for the reasons set forth on pages 2 to 3 of the February 9, 2007 Office Action.

It was admitted in the Office Action that Wei does not disclose a positive electrode that is separate from a material.

None of the references discloses (a) providing a material comprising a first metal film formed on a substrate and a second metal film formed on said first metal film; (b) forming a predetermined pattern on the second metal film to selectively remove the second metal film, an exposed portion of the first metal film from which the second metal film is removed being passivated; (c) performing an electrolysis reduction process by nascent hydrogen for the first metal

film to reduce said passivated portion to said first metal film; and (d) etching the first metal film by contacting the exposed portion with an acidic etching treatment solution to form the predetermined pattern on the first metal film, as recited in applicants' claims.

Wei (USP 4,350,564) teaches a method of etching a desired pattern in a thin film of chromium deposited on a substrate. As described in column 2, line 46 to column 3, line 15 of Wei, a layer 16 of silicon dioxide of about 1000 Angstroms thick is formed on a layer 15. A thin film 18 of chromium of about 75 Angstroms thick is deposited on the exposed surface of the silicon dioxide layer 16 to provide the composite structure shown in Fig. 3A. A layer 19 of a material which is resistant to the etching action of hydrochloric acid is deposited over the exposed surface of the thin film 18 of chromium as shown in Fig. 3B. After exposing and developing of the layer of photoresist to provide a pair of retained portions 19a and 19b thereof, a thin layer 21 of aluminum of about 150 Angstroms thick is

sputtered on the exposed surfaces of the resultant assembly including the portion 18a of the surface of the thin film of chromium 18 exposed by the aperture or pattern 22 formed in the layer 19 of photoresist and also on the exposed surfaces of the retained portions 19a and 19b of the photoresist as shown in Fig. 3C. The resultant structure is then immersed in a dilute solution of hydrochloric acid consisting of one part of concentrated hydrochloric acid to one part of glycerine by volume for about 30 seconds until the portion 21a of the aluminum deposited on the surface 18a of the thin film of chromium and the portion of the chromium film lying thereunder are completely removed, as shown in Fig. 3D.

As shown in Fig. 3C of Wei, a thin layer 21 of aluminum is sputtered on the exposed surfaces of the resultant assembly including the portion 18a of the surface of the thin film of chromium 18 exposed by the aperture or pattern 22 formed in the layer 19 of photoresist. Thus, there is no passivated portion of the chromium 18.

As described above, Wei is silent concerning a wet etching process, an electrolysis reduction process, and an acid dip process, as recited in applicants' claims.

Yokoyama et al. (USP 6,294,467) teach merely an anode electrode 8 that is separated from a material. However, the material does not include a second metal film. The material consists of the substrate 1, the lower layer wiring 2, the first interlayer insulating film 3, and the second interlayer insulating film 4.

Entry of each of the above amendments and new claims is respectfully requested.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Richard S. Barth', written over a horizontal line.

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